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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/506,845	09/03/2004	Martin John Cheese	BHJ3USA	4668
270	7590	09/28/2006	EXAMINER	
HOWSON AND HOWSON SUITE 210 501 OFFICE CENTER DRIVE FT WASHINGTON, PA 19034			LINDSEY, RODNEY M	
			ART UNIT	PAPER NUMBER
			3765	

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/506,845

Applicant(s)

CHEESE, MARTIN JOHN

Examiner

Rodney M. Lindsey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 17-33 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 17-33 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 September 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 3/18/05.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the helmet as set forth in claim 17 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 21, 22, 24, 28, 29, 32 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442. With respect to claims 1 and 21 Daly '322 shows the steps of cutting blanks 25, 26 from a sheet of fabric (see column 3, line 11 and column 3, lines 30, 31), making cuts as claimed (see column 3, lines 41-48) and arranging a stack of such sheets (see column 4, line 12 and Figure 4). Daly '322 does not teach the blanks 25, 26 being rectangular or substantially square. Hansen '442 teaches that to form blanks as at 1, 2 of a rectangular or substantially square shape is old in the art of fiber reinforced fabrics. It would have been obvious to one of ordinary skill in the art at the time of the invention to formed the blanks 25, 26 of Daly '322 of the rectangular or substantially square shape of the blanks as at 1, 2 of Hansen '442 to achieve the advantage of enhancing knowledge of the orientation of the fibers or filaments of the blank as taught by Hansen '442 (see column 2, lines 48-58). With respect to claim 22 the step of forming the blanks of a substantially square shape effectively would define a cut in each side of the square. Further the express formation of only four (4) lobes would have been considered an obvious matter of choice and design to one of ordinary skill in the art at the time of the invention since all that would have been critical is that the number of lobes be such that overlap and cavity coverage can be effected. With respect to claim 24 the step of starting the cut within the specific range along each side of the blank would have been considered an obvious matter of choice and design to one of ordinary skill in the art at the time of the invention since it would have been readily apparent to place each cut such that enough blank material remains on either side of the cut to in fact maintain the integrity and strength of each formed lobe. With respect to claim 28 Daly '322 does not expressly teach the

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use of a cavity as claimed. Hansen '442 also teaches old and well known the use of a cavity as at 7. It would have been obvious for one of ordinary skill in the art at the time of the invention to additionally modify the method of Daly '322 by providing it the step of pushing blanks into a cavity as taught by Hansen '442 as an alternative means of shaping the blanks into a final product. With respect to claim 29 note such offset as taught by Daly '322 (see column 4, lines 26-30). With respect to claim 32 note in Daly '322 the use of heat and pressure as claimed (see column 4, lines 37-46). With respect to claim 33 note in Daly '322 the sanding step (see column 4, line 72) equivalent to trimming as claimed in that material is removed to define the final product to be worn.

4. Claims 2, 3, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442 as applied to claim 1 above, and further in view of Denommee et al. With respect to claims 2 and 3 it would have been obvious to one of ordinary skill in the art at the time of the invention to impregnate the fabric of Daly '322 with phenolic resin of Denommee et al. (see for instance column 5, line 44) thus recognizing the expedience of employing old and well known fabric impregnating material. With respect to claim 18 note the reasons for rejection of claim 21 as set forth above. With respect to claim 19 the step of forming the blanks of a substantially square shape effectively would define a cut in each side of the square. Further the express formation of only four (4) lobes would have been considered an obvious matter of choice and design to one of ordinary skill in the art at the time of the invention since all that would have been critical is that the number of lobes be such that overlap and cavity coverage can be effected.

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5. Claims 23 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442 as applied to claims 1 and 24 above, and further in view of Frieder.

It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Daly '322 by making curved cuts in the manner of Frieder as per Figures 1 and 9 thus recognizing minimal material overlap in forming the perform. With respect to claims 25 and 26 note such teaching as shown in Figure 1 of Frieder. With respect to claim 27 the exact point of termination of each cut would have been considered an obvious matter of choice and design to one of ordinary skill in the art at the time of the invention since all that would have been critical is that each cut terminate without destroying the integrity or strength of the blank.

6. Claims 17 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442 and Denommee et al. as applied to claim 19 above, and further in view of Frieder. It would have been obvious to one of ordinary skill in the art at the time of the invention to further modify the method of Daly '322 by making curved cuts in the manner of Frieder as per Figures 1 and 9 thus recognizing minimal material overlap in forming the perform. With regards to claim 17 note the helmet resulting from the modified method of Daly '322 effectively defined by impregnated rectangular blanks per Hansen '422 and Denommee et al. and having curved cuts per Frieder. Note also that Daly '322 teaches the use of at least four (4) cuts.

7. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442 as applied to claim 1 above, and further in view of White '877. It would have been obvious to vary the size of the blanks in the manner of claim 2 of White '877 to better accommodate the increasing size of the outer area for each succeeding assembled blank.

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8. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Daly '322 in view of Hansen '442 as applied to claim 1 above, and further in view of Holmes. To provide the blanks of Daly '322 a thickness in the range of .3 to 1 mm would have been obvious to one of ordinary skill in the art at the time of the invention in view of such blank thickness as taught by Hansen '442 (see column 2, lines 44-49) to effectively permit layering to provide a desired degree of penetration prevention.

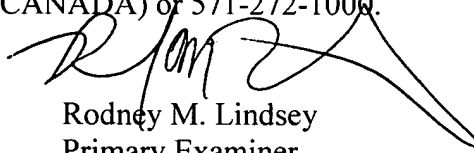
Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Note particularly, the blanks used in Hudson, Rosenberg et al., Japanese patent to Inui et al., French patent to Didier, Li et al. '667, Noland et al., Medwell, Tracy et al., Schuster et al., van der Loo, German patent to Busch, Daly '442, Clay, Voss et al., Grick, Olson et al., and Li et al. '234 and the cuts of Bullard, Lewis, Pityo et al. and Doerfling.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rodney M. Lindsey whose telephone number is (571) 272-4989. The examiner can normally be reached on M-F (8:30-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gary L. Welch can be reached on (571) 272-4983. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Rodney M. Lindsey
Primary Examiner
Art Unit 3765

rml